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AU, SCOTT D

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Paper No. 9

Application Number: 09/826,486
Filing Date: April 04, 2001
Appellant(s): FOSTER, RONALD R.

Chun M. Ng
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 3/29/04.

(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

(2) *Related Appeals and Interferences*

The brief does not contain a statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief. Therefore, it is presumed that there are none. The Board, however, may exercise its discretion to require an explicit statement as to the existence of any related appeals and interferences.

(3) *Status of Claims*

The statement of the status of the claims contained in the brief is correct.

(4) *Status of Amendments After Final*

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) *Summary of Invention*

The summary of invention contained in the brief is correct.

(6) *Issues*

The appellant's statement of the issues in the brief is correct.

(7) *Grouping of Claims*

The appellant's statement in the brief that certain claims do not stand or fall together is not agreed with because the Appellant provides a separate argument for claim 9 from that of claims 1-8 and 13.

Therefore, the grouping of claims is follows:

Claims 1-8 and 13 stand or fall together.

Claim 9 stands by itself.

(8) *Claims Appealed*

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) *Prior Art of Record*

| | | |
|-----------|-------------------|---------|
| 6,028,773 | Hundt, Michael J. | 02-2000 |
| 6,225,676 | Hattori et al. | 05-2001 |
| 5,606,365 | Maurinus et al. | 02-1997 |

(10) *Grounds of Rejection*

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2635

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hundt (US# 6,028,773) in view of Hattori et al. (US# 6,225,676).

Referring to claim 1, Hundt discloses an appliance integrated biometric security system comprising:

an electronic appliance (i.e. electronic appliances consist of cellular phones, laptop computers, card readers, smart card, automobiles and teller machines) (col. 3 lines 13-25); and

an integrated biometric security system including a CMOS image sensor (20), a signal processor (i.e. a microcontroller), and non-volatile memory (i.e. a memory) (col. 5 lines 37-49 and col. 10 lines 26-32). However, Hundt did not explicitly disclose an integrated system formed in a single integrated circuit die.

In the same field of endeavor of integrated circuit device, Hattori et al. disclose an integrated system formed in a single integrated circuit die (col. 1 lines 10-15) in order to achieve a higher level of integration, multiple functions, reduced cost and a reduction in size.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to include a plurality of elements mounted a single

chip disclosed by Hattori et al. into integrated circuit of Hundt with the motivation for doing so would allow a reduced of cost and size.

Referring to claim 2, Hundt in view of Hattori et al. disclose an appliance integrated biometric security system of claim 1, Hundt discloses wherein the signal processor is selected from the group consisting of: a microprocessor; and a digital signal processor (col. 5 lines 37-49 and col. 10 lines 26-32).

Referring to claim 3, Hundt in view of Hattori et al. disclose an appliance integrated biometric security system of claim 1, Hundt discloses wherein the non-volatile memory is a programmable read only memory (col. 10 lines 26-32).

Referring to claim 4, Hundt in view of Hattori et al. disclose an appliance integrated biometric security system of claim 1, Hundt discloses wherein the electronic appliance is selected from the group consisting of: a cell-phone; a pager; a personal-digital-assistant; a laptop computer; and a digital camera (col. 3 lines 15-20).

Referring to claim 5, Hundt in view of Hattori et al. disclose an appliance integrated biometric security system of claim 1, Hundt discloses wherein the non-volatile memory is selected from the group consisting of: electrically erasable programmable read only memory; flash memory; and programmable read only memory (col. 10 lines 29-32).

Referring to claim 6, Hundt in view of Hattori et al. disclose an appliance integrated biometric security system of claim 1, Hundt discloses further including an input/output section for programming the non-volatile memory and for communicating with the electronic appliance. The claim is inherent because the memory is an EEPROMs, there must be an input into the memory and board (14) is for connection to the output devices (col. 10 lines 26-73; see Figure 1B).

Referring to claim 7, Hundt in view of Hattori et al. disclose an appliance integrated biometric security system of claim 1, Hundt discloses wherein the non-volatile memory is used to store a template that identifies an individual authorized to access the electronic appliance (col. 10 lines 17-37).

Referring to claim 8, Hundt in view of Hattori et al. disclose an appliance integrated biometric security system of claim 1, Hundt discloses wherein the non-volatile memory is used to store a plurality of templates, each one of the plurality of templates identifying an individual authorized to access the electronic appliance (col. 10 lines 17-37).

Referring to claim 13, Hundt discloses an appliance integrated biometric security system comprising:

A portable, personal electronic appliance having functional hardware; and an integrated biometric security system for authenticating an authorized user of the appliance (col. 3 lines 17-25), including:

a CMOS image sensor for capturing raw image data of a physiological characteristic of a candidate user (col. 5 lines 37-49);
non-volatile memory for storing a template that identifies the authorized user (col. 10 lines 27-32); and
a microprocessor (i.e. a microprocessor or a microcontroller) for extracting a feature set from the raw image data, for comparing the feature set to the template and directing the biometric security system to allow access to the functional hardware of the appliance if the feature set is substantially similar to the template (col. 10 lines 23-32).

However, Hundt did not explicitly disclose an integrated system formed in a single integrated circuit die.

In the same field of endeavor of integrated circuit device, Hattori et al. disclose an integrated system formed in a single integrated circuit die (col. 1 lines 10-15) in order to achieve a higher level of integration, multiple functions, reduced cost and a reduction in size.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to include a plurality of elements mounted a single chip disclosed by Hattori et al. into integrated circuit of Hundt with the motivation for doing so would allow a reduced of cost and size.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hundt (US# 5,267,323) in view of Hattori et al. (US# 6,225,676) as applied to claim 8 above, and further in view of Maurinus et al. (US# 5,606,365).

Referring to claim 9, Hundt in view of Hattori et al. discloses an appliance integrated biometric security system of claim 8. However, Hundt in view of Hattori et al. did not explicitly disclose wherein the non-volatile memory stores a pixel defect map.

In the same field of endeavor of image capture system, Maurinus et al. teach wherein the non-volatile memory stores a pixel defect map (col. 5 lines 28-35) in order to identify the defective photosites.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to add that the non-volatile memory stores a pixel defect map of system disclosed by Maurinus et al. into system of Hundt in view of Hattori et al. with the motivation for doing so would allow the memory stored information relating to image sensor.

(11) Response to Argument

A. On page 6, third paragraph, Appellant's argument that "Hundt teaches away from forming an Integrated Biometric security system on a single integrated circuit die", is not persuasive.

Hundt disclose an integrated circuit package for direct mounting of an integrated circuit die to a printed circuit board. The integrated circuit die includes a sensor that detects changes in external variables and the reverse side of the printed circuit board includes one or more chips integrated into it (i.e. see Abstract and col. 10 lines 17-37). However, nowhere in the Hundt's specification does he expressively state that combining into a single IC would not work. Therefore, Hundt cannot be considered as teaching away from single IC.

Disclosed examples and preferred embodiments do not constitute a teaching away from a broader disclosure or nonpreferred embodiments. In re Susi, 440 F.2d 442, 169 USPQ 423 (CCPA 1971). "A known or obvious composition does not become patentable simply because it has been described as somewhat inferior to some other product for the same use." In re Gurley, 27 F.3d 551, 554, 31 USPQ2d 1130, 1132 (Fed. Cir. 1994).

B. On page 7, second paragraph, Appellant's argument that "One of ordinary skill in the art would not be motivated to modify Hundt's device in view of Hattori et al.", is not persuasive.

Hundt discloses an integrated circuit package for direct mounting of an integrated circuit die to a printed circuit board. The integrated circuit die includes a sensor that detects changes in external variables and the reverse side of the printed circuit board includes one or more chips integrated into it (col. 10 lines 17-37). Furthermore, Hundt discloses biometric sensors formed in accordance with the present invention will have

application in preventing the unauthorized use of cellular phones, laptop computers, automobiles, automated teller machines, credit/debit card readers, POS terminals, and smart cards (col. 3 lines 13-25).

In the same field of endeavor of integrated circuit device, Hattori et al. disclose a plurality of elements or circuits are mounted on a single chip in order to achieve a higher level of integration, multiple functions, reduced cost and a reduction in size (col. 1 lines 10-15). Furthermore, Hattori et al. disclose that a semiconductor device comprising: a substrate portion of a predetermined conductivity type connected to a ground; a semiconductor layer disposed on the substrate portion, the semiconductor layer including a plurality of island regions and a corresponding plurality of isolation regions that surround the respective island regions for electrically separating island regions from each other, wherein each of the island regions includes a circuit capable of providing a predetermined function; and a first capacitor having a first terminal connected to either the substrate portion or the semiconductor layer and a second terminal connected to the ground (col. 1 lines 35-47).

One of ordinary skill in the art understands that plurality of circuits on a single chip of Hattori et al. is desirable in the integrated circuit package of Hundt because Hundt suggests the reverse side of the printed circuit board includes one or more microchips, such as an oscillator, passive elements, such as capacitors, a voltage regulator, and a connector. The top surface can be used for a microprocessor or microcontroller that enables outputting of an image, confirmation or authorization data, and other information to peripheral devices (col. 10 lines 17-37) and Hattori et al.

Art Unit: 2635

suggest a plurality of elements or circuits are mounted on a single chip in order to achieve a higher level of integration, multiple functions, reduced cost and a reduction in size. Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to use the single chip method of Hattori et al. in the integrated circuit die of Hundt with the motivation for doing so would allow a reduced of cost, size and to increase a higher level of integration.

C. On page 9, second paragraph, Appellant's argument that "One of ordinary skill in the art would not be motivated to modify Hundt's device in view of Hattori et al. and Further view of Maurinus et al.", is not persuasive.

Hundt in view of Hattori et . disclose an appliance integrated biometric security system formed in a single integrated circuit die.

In the same field of endeavor image capture system, Maurinus et al. teach the ID code for the camera, stored in memory at manufacture, is read out by a camera microcontroller and appended to the raw, digitized image information set for each image frame that is transferred to non-volatile memory. The camera is tested during manufacture to determine which of the CCD array photosites of the CCD array are defective. A pixel defect map associated with the ID number is created that identifies the defective photosites by row and column number (col. 5 lines 27-36).

One of ordinary skill in the art understands that the method of pixel defect map stored in non-volatile memory of Maurinus et al. is desirable in the memory registers of

Art Unit: 2635

Hundt in view of Hattori et al. because Hundt suggests the memory registers, such as DRAMs, or EEPROMs, can be included in the microcontroller to enable programming of additional authorized fingerprints (i.e. Hundt, col. 10 lines 25-33) and Maurinus et al. teach that the digitized image information set for each image frame is transferred and stored to the non-volatile memory. A pixel defect map associated with the ID number is created that identifies the defective photosites by row and column number. Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made include the method of pixel defect map stored in non-volatile memory of Maurinus et al. in the memory registers of Hundt in view of Hattori et al. with the motivation for doing so would allow the memory stored information relating to image sensor.


For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

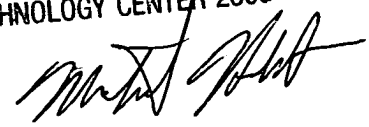
June 10, 2004

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